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Docket No. 2751-1A

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

GAÉTAN LECLERC

Serial No.: 10/771,098

Art Unit: 3611

Filed: July 27, 2006

Title: MOTORIZED SEMI-TRAILER

Commissioner for Patents  
Alexandria, VA 22313-1450

CERTIFIED COPY OF PRIORITY DOCUMENT

SIR:

In the matter of the above identified application, Applicant herewith encloses Certified Copies of the priority documents, namely Canadian Patent Application Serial Number 2,418,686 filed February 7, 2003.

Respectfully,

Eric Fincham  
Reg. No. 28,201

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA. 22313-1450, on *Aug 2, 2006*

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Eric Fincham



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This is to certify that the documents  
attached hereto and identified below are  
true copies of the documents on file in  
the Patent Office.

Specification and Drawings, as originally filed, with Application for Patent Serial No:  
CA 2418686, on February 7, 2003, by GAÉTAN LÉCLERC, for "Motorized Semi-  
Trailer".

*Stacy Pauchant*  
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Agent certificateur/Certifying Officer

July 20, 2006

Date

(CIPO 68)  
31-03-04

Canada

O P I C  C I P O

## MOTORIZED SEMI-TRAILER

The present invention relates to a field of transportation and more particularly, relates to improvements in a semi-trailer designed to be hauled by a tractor.

The use of motorized vehicles for the transportation of goods has been known for a number of years and various standard vehicle configurations have evolved. In the field of trucking, a standard arrangement used is that of a tractor along with at least one trailer pulled thereby. On occasion, more than one trailer will be pulled.

In these configurations, the cab portion has the motor and the braking system. Hydraulic and air lines are supplied to the trailer portion for braking purposes.

While the above system is conventional and has operated with minor changes for many years, it is always desirable to have a system which can operate more efficiently and reduce fuel costs. A reduction of fuel consumption would also reduce gas emissions obviating the accompanying greenhouse effect.

It is an object of the present invention to provide an arrangement wherein the fuel consumption of a motorized semi-trailer may be reduced.

According to one embodiment of the present invention, there is provided a partially motorized semi-trailer which is attached to a conventional tractor or cab.

According to the present invention, the semi-trailer is provided with driven wheels which may be used under certain circumstances. Preferably, the wheels are driven by electrical means - i.e. an electric motor such as is known in the art.

According to the invention, there is provided a trailer, which may be of any desired configuration, having one or more electrical motors. There are also provided, either with

the trailer or the tractor, rechargeable batteries such as are known in the art and a motor or turbine permitting the recharging of the batteries while moving.

The means for charging the batteries may consist of any of those known in the art and to this end, electric motor brakes which will recharge the batteries when the trailer is braking may be utilized. Naturally, other conventional and non-conventional sources may be used - i.e. solar panels, and the like. The batteries can be mounted on either the tractor or trailer or both.

The trailer will be provided with means for controlling the power and detectors may be utilized to automatically activate the electric motors for acceleration or deceleration. A manual system may also be incorporated.

The practice of the present invention would provide increased security as it would increase the braking capacity and downhill deceleration capability of the vehicle. On the other hand, it would also increase the uphill acceleration capability. This can be important as it would help reduce dangerous situations which arise when a trailer is forced to travel slowly up a non-divided highway. Also, since there would be extra power going uphill, the driver would not need to attempt to attain unreasonable downhill speeds in order to facilitate the next ascent.

As aforementioned, there would be provided suitable control circuits and detectors which could be utilized to automatically activate the electric motor or motors in order to accelerate or decelerate. Thus, detectors could be used for the degree of inclination, speed loss, braking, speed increase, etc. The control circuit could also be tied into the normal braking controls of the vehicle.

The arrangement would also reduce fuel consumption which would contribute to lower transportation costs and lower gas emissions.

It will be understood that the above described embodiment is for purposes of illustration only and that changes or modifications may be made thereto without departing from the spirit and scope of the invention.